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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,925	07/03/2003	Roland Felix	FELIX	4631

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EXAMINER	
MACKEY, JAMES P	

ART UNIT	PAPER NUMBER
1722	

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/613,925	FELIX, ROLAND	
	Examiner	Art Unit	
	James Mackey	1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-12 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-12 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 7/3/2003.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 5, "to carry out a limited movement" is indefinite as to what structure has the limited movement in relation to what other structure; and line 11, "constructed to normally connect" is of indefinite scope, since the metes and bounds of what is "normal" cannot be ascertained.

In claim 2, lines 2-3, "having a preset spring tension in correspondence to a stroke force applied by the drive unit" is indefinite as to exactly what the spring tension is, such that the metes and bounds of the claim cannot be ascertained.

In claim 6, lines 2-3, the plurality of rotatable locking nut "extending through the first platen" is apparently incorrect, since the screw shaft only extends through the platen.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by German 101 03 983.

5. Claims 1-10 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Wohlrab et al. (US 2004/0091570; see paragraphs 12 and 46).

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over either German 101 03 983 or Wohlrab et al. (US 2004/0091570; see paragraphs 12 and 46).

German '983 and Wohlrab et al. each disclose the clamping mechanism substantially as claimed, except for the drive unit being either a rack-and-pinion drive or a hydraulic drive. However, it would have been obvious to a skilled artisan to have provided the drive unit as any well known and conventional drive means for providing opening and closing motion to a movable platen, such as conventional rack-and-pinion and hydraulic drive mechanisms, for the same purpose of providing opening and closing motion to the movable first platen.

9. Claims 1, 5-8, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischbach (U.S. Patent 3,604,058; col. 5, lines 10-19; col. 6, lines 1-2; col. 7, lines 14-25).

Fischbach discloses a clamping mechanism in an injection molding machine, comprising a drive unit 7, 8 for moving a first platen 5 in relation to a fixed second platen 1, the drive unit being linked to the first platen so as to carry out a limited movement; a force application unit 5A for providing a clamping force when the first platen is in a closing position; and a locking device (Figs. 5-8) for transmitting the clamping force and including a screw mechanism operating in synchronism with the drive unit (col. 6, lines 1-2), the screw mechanism having a screw shaft 6 and a locking nut 31, 50 which is self-locking (col. 5, lines 10-12; col. 7, lines 14-15) and which connects with a clearance to the screw shaft via a thread connection, wherein the locking nut is rotatably driven (Figs. 5-8), and wherein a plurality of screw mechanisms may be provided (col. 4, lines 49-55; col. 7, lines 19-20). Fischbach further discloses in the embodiment of Figs. 1-4 that the locking device is disposed between the force application unit and the first platen, but does not disclose the locking nut as being self-locking in this embodiment of Figs. 1-4. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Figs. 5-8 of Fischbach by providing the locking device disposed between the force application unit and the first platen, as disclosed in the embodiment of Figs. 1-4, since such were equivalent means of providing a clamping force to the first platen, and since a skilled artisan would have readily recognized that providing the clamping cylinder in the rear platen 2 was an equivalent to the clamping cylinder located within the first platen. Conversely, it would have been obvious to a skilled artisan to modify the device of Figs. 1-4 of Fischbach by providing the locking nut as a self-locking nut in combination with rotating means

for rotating the locking nut, as disclosed in the embodiment of Figs. 5-8, since a skilled artisan would have recognized that such were equivalent means of locking onto the screw shaft only during clamping. It would have been further obvious to a skilled artisan to have provided the drive unit as any well known and conventional drive means for providing opening and closing motion to a movable platen, such as conventional ball screw, rack-and-pinion, and hydraulic drive mechanisms, for the same purpose of providing opening and closing motion to the movable first platen.

10. Claims 2-4, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischbach as applied to claims 1, 5-8, 11 and 12 above, and further in view of either German 101 03 983 or Wohlrab et al. (US 2004/0091570).

Fischbach does not disclose that the drive unit includes a spring assembly for linking the drive unit to the first platen for limited movement, and does not disclose that the drive unit includes the screw shaft of the locking device. German '983 and Wohlrab et al. each disclose a clamping mechanism for an injection molding machine, comprising a drive unit for opening and closing a movable first platen comprises a screw shaft and a cooperating first screw nut, a force application unit (pressure cylinder) for applying a clamping force when the first platen is in a closing position, and a locking device including a second locking screw nut threadedly connected to the screw shaft (which may have a double thread), wherein a spring assembly is associated with the first screw nut of the drive unit for linking the drive unit to the first platen for limited movement. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Fischbach by providing the drive unit on the screw shaft of the locking device for applying the clamping pressure, as disclosed in either German '983 or Wohlrab et al.,

in order to utilize the screw shafts for the opening and closing motion as well as for the clamping force. It would have been further obvious to a skilled artisan to have provided a spring assembly associated with the drive unit, as disclosed in either German '983 or Wohlrab et al., in order to permit limited movement of the drive unit during application of the clamping force and thereby avoid damage to threads of the drive unit during clamping.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Mackey whose telephone number is 571-272-1135. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James Mackey
Primary Examiner
Art Unit 1722

jpm
October 2, 2005

10/2/05